REMARKS

Applicants respectfully traverse and request reconsideration.

Applicants respectfully submit, for the Examiner's consideration, amended claims 24, 29-31, 33, 38-40, 42, 46-48 and 50. Applicants respectfully submit that these claims do not add any new subject matter which would require the Examiner to conduct any further prior art searching, but rather these amendments are merely directed to form and providing further clarification of the claimed present invention. It is respectfully submitted that these amendments are not directly related to patentability and are not narrowing in nature. Should the Examiner feel that the present amendments are directly related to patentability or narrowing in nature, Applicants respectfully request a statement from the Examiner asserting this position. Furthermore, with regards to claim 50, Applicants respectfully submit that this was originally presented claim 55 which was presented out of numerical sequence and the addition of this claim numbered as claim 50 rather than claim 55 is proper in the present case.

Claims 24, 29-33 and 38-50 currently stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kou in view of Zenda. Applicants respectfully traverse the present rejection and request reconsideration.

Kou teaches, *inter alia*, a method and apparatus for driving a plurality of display simultaneously, but does not suggest the use of a coupling controller to facilitate the process. Kou teaches, *inter alia*, a mechanism which enables the use of the same graphics data stream to run two separate displays, and yet refresh each display using an independent clock rate (page 4, lines 13-18). Kou teaches using only one display controller and one set of graphics data to derive multiple displays. Kou manipulates the graphics data for desired display and sets clock rates that will optimize the refresh rate for each display. Kou does not teach the use of multiple display controllers and multiple screen memories, which are configured under the control of a coupling controller. As an example, Kou is limited to driving multiple displays that are displaying the same data.

Zenda teaches, *inter alia*, that a flat panel display as well as a CRT display unit can be operated from a single computer. Zenda describes in col. 5, lines 19-57 that keyboard commands

can cause the display to be switched from the flat panel display to the CRT display. Zenda teaches that the CRT controller selectively drives either the CRT 19 or the PDP 21, based on display timing signal generated parameter set in display timing registers 27. (see col. 3, lines 44-48). Zenda, in FIG. 3, shows, *inter alia*, an arrangement of a pallet 13 which sends six-bit display data to the CRT 19. The six-bit display data is constituted by red, green and blue bits, and supplementary bits for the red, green and blue bits respectively.

Applicants respectfully submit appreciation for the Examiner's thoroughness and response to the previous Office Action, but must respectfully disagree. As specifically claimed in claims 24, 33, 42 and 49, the claimed present invention claims, *inter alia*, driving multiple displays. In the present rejection, the Examiner has relied solely on the teachings of Zenda as disclosing the claimed limitations directed to, for example, sub-elements B and C of claims 24, which are directed to, *inter alia*, determining whether the display preferences can be fulfilled in observance of at least one of the configuration properties of the multiple displays or the configuration properties of a computing system. Applicants respectfully submit that Zenda clearly teaches, *inter alia*, a system in which a flat panel display system provides output display to either a CRT or an LCD display but does not provide for driving the display of both displays simultaneously. Furthermore, in support of the present rejection, the Examiner has asserted that the specific elements within the teachings of Zenda, more specifically, the keyboard and the expansion slot of the computer and the entire configuration of the computer correspond to all of the claimed properties not taught by Kou (indicated as everything except "received display preferences regarding multiple displays").

Applicants respectfully maintain the traverse of the present rejection as the Examiner has failed to provide adequate support and is further submitted that Zenda does not teach all of the claimed limitations including determining whether the display preferences can be fulfilled in observance of one of the configurations of the multiple displays or configuration properties of the computing system and configure the computing system and the multiple display in accordance with the display preferences because Zenda only drives one display at a time. Therefore, Zenda fails to disclose a system which drives multiple screens, but rather Zenda solely teaches a system which drives a single display screen based on a determined preference.

On page 9 of the Remarks section in the present Office Action, the Examiner asserts in the first full paragraph that the limitations are disclosed by Kou and Zenda wherein Zenda's invention teaches "analog switch 97 and selector 113 are controlled by the Vcc register..." Applicants respectfully traverse and submit that the Examiner-cited passage merely discloses that there are multiple different possible resolutions for the single display as taught by Zenda and fails to provide support for Zenda disclosing the multiple outputs for driving multiple displays.

Claims 24, 29-33 and 38-41 stand rejected under 35 U.S.C. § 103(a) as being unpatentable in view of Caine. Applicants respectfully submit the rejection as improper as the Examiner has not made a *prima facie* case in support of the present rejection. Regarding page 6, the Examiner asserts that "it would have been obvious to a person of ordinary skill in the art to recognize that Caine discloses as recited in claim 24(a), claim 24(b) and claim 24(c) as claimed (by virtue of the operation described at col. 2, lines 21-68 to col. 3, lines 1-68). Applicants respectfully submit that claim 24 recites further limitations herein labeled as sub-steps d, e and f for the Examiner's consideration which previously existed within the claimed limitations but had not been herein so lettered. The Examiner has failed to provide any support in regards to the claimed present rejection regarding the teachings of these sub-elements and as such Applicants respectfully request withdrawal of the present rejection. Among other things, Caine fails to disclose the sub-steps of d, e and f and Applicants maintain the present position traversing the Examiner's discussion regarding the teachings of Caine with regards to sub-steps a, b and c of the claimed present invention, for example within claim 24.

Caine discloses a display system that uses information from a host computer for display on a wall of video screens. Each screen displays a portion of an image. The system is comprised of a plurality of video channels, each channel driving a display. Each video channel is further comprised of a video driver connected to memory dedicated to that particular video channel. A status register is used to select a multiplexor (see col. 3, lines 1-4) to select an overlay color for the video drivers (see col. 3, lines 37-39) and to control the number of images stored, how they are sequenced and whether the information displayed on the screen relates from screen to screen (see col. 6, lines 16-21).

While Applicants acknowledge that Zenda teaches, *inter alia*, the ability to drive multiple screens, Zenda fails to claim specific disclosure of driving multiple screens simultaneously.

Furthermore, Applicants respectfully submit that the Examiner has failed to address the further limitations regarding all of the claimed limitations of claim 24, 33, 42 and 49. For example, claim 24 recites, *inter alia*, operating instructions that, when executed by a processing unit, cause the coupling control of the processing unit to "operably couple a display controller of the computing system to the multiple displays, the display controller providing display data to the multiple displays; operably couple the display controller to a plurality of screen memories, each of the plurality of the screen memories storing separate display data and the display controller retrieving the display data-from the plurality of screen memories; and operably couple the display controller to a plurality of display drivers, each of the plurality of display drivers writing the separate display data to the plurality of screen memories." As discussed above, Zenda discloses a system which drives a single display and having the ability to drive different types of single displays, but is specifically limited to driving a single display, wherein the claimed present invention is directed to driving multiple displays. Therefore, Applicants respectfully traverse and request reconsideration. In the event the Examiner should maintain the present rejection, Applicants request a showing, including column and line number, of where each of the claimed limitations are specifically disclosed, including sub-steps D, E and F of claims 24.

Regarding claims 29-32, 38-41, 43-48 and 50, Applicants respectfully submit these claims contain further patentable subject matter in view of the prior art of record. Furthermore, it is respectfully submitted that Kou and Zenda fail to disclose all of the claimed limitations including, for example, "wherein the memory further comprises programming instructions that cause the processing unit to operably couple a first display controller of the computing system to a first display of the at least one of the multiple displays and operably coupling a second display controller of the computing system to a second display of the multiple displays as claimed in claim 29." Therefore, for at least the reasons stated above, Applicants request reconsideration and withdrawal and the passage of these claims to issuance.

Regarding claims 24 and 32, in the response to argument section of the present Office Action, the Examiner asserts that the previously submitted arguments regarding Caine are not persuasive because Caine "teaches the status register 36 is common to all channels and is moreover at the same address on all boards so all 24 channels are treated identically so far as the status register bits are concerned. Obviously, the six boards could have separately addressed status registers and, on any given board, there could be separately addressed status registers for each channel." Applicants respectfully traverse the Examiner's assertions herein as the teaching of Caine is directed to driving multiple displays having the exact same type of display output for providing a plethora of information across many different outputs. An important factor in the teaching of Caine is that all of the displays are identical, therefore Caine does not require specific configuration properties of the multiple displays. The claimed present invention is directed to determining the configuration properties of the different multiple displays and based on the configuration properties determining whether to provide an output display. It is respectfully submitted that Caine teaches a completely different invention and operates in a completely different manner as the video drivers 24a-d are directed to a single type of output, such as a CRT display 60 and does not require any type of configuration properties as they all have the same configuration and Caine discloses operating the visual data to the different screens, not programming the different screens. Therefore, among other things, the system of Caine would not require to "configure the computing system and the multiple displays in accordance with the display preferences when the display preferences can be fulfilled, and reconfigured operable coupling of the multiple displays to the computing system such that multiple displays are configured in accordance with display preferences when the current configuration can be reconfigured." Caine does not teach a system upon which there can be any reconfiguration, but rather teaches driving a wall of video displays having a set configuration. Therefore, for at least the reasons stated above, Applicants request reconsideration and withdrawal. Regarding claims 29-31 and 38-41, Applicants respectfully submit that these claims contain further patentable subject matter in view of Caine. Therefore, for at least the reasons stated above, Applicants respectfully request reconsideration and withdrawal. As such, Applicants request the passage of claims 24, 29-32 and 38-41 to issuance, in view of the present rejection.

Claims 42-50 currently stand rejection under 35 U.S.C. § 103(a) as being unpatentable over Caine in view of Zenda. Applicants respectfully traverse and request reconsideration.

Applicants respectfully resubmit the above offered position with regards to claim 24 and further submits that claims 42 and 49 subject matter which is not taught or suggested by either Caine, Zenda or the combination thereof.

Applicants respectfully resubmit that Caine fails to disclose a system operating in accordance with the claimed present invention and furthermore, Zenda fails to teach a system upon which there is driving multiple displays. Therefore, if one of ordinary skill in the art were to combine the teachings of Caine and the teachings of Zenda, the final product would result in a system driving multiple displays of a single type of display, which is inconsistent with the claimed present invention. As Caine teaches driving a wall of video monitors, Caine discloses a system in which the visual data is distributed to be placed among the different monitors through the use of multiple drivers and Zenda teaches a system in which the output display is formatted for **either** an LCD or a CRT display. As such, the combination thereof does not produce the claimed present invention as claimed in claims 42 and 49. Therefore, Applicants respectfully request reconsideration and withdrawal. For example, claim 42 claims, *inter alia*, the display preferences being fulfilled, the coupling controller provides configuration requirements to the coupling module based on the configuration requirements. As discussed above, Caine does not require configuration requirements as all of the screens have the exact same configuration and would not therein require a coupling module or a coupling controller and furthermore the system of Zenda does not teach a coupling controller operably coupled to receive display preferences and determining whether the display preferences can be fulfilled because Zenda describes a system in which the output is either for a first type of screen, such as a CRT or a second type of screen, such as a LCD. Therefore, the combination of Caine and Zenda fails to produce the claimed present invention and would, in fact, produce a system which is completely contrary and not contained within the claimed present invention of claims 42 and 49. Therefore, Applicants request reconsideration and withdrawal.

Regarding claims 43-49 and 50, Applicants respectfully submit these claims contain further patentable subject matter in view of Caine and Zenda. Therefore, for at least the reasons stated above, Applicants respectfully request reconsideration and withdrawal of the present rejection and the passage of these claims to issuance.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "Version with markings to show changes made."

Accordingly, Applicant respectfully submits that the claims are in condition for allowance and that a timely Notice of Allowance be issued in this case. The Examiner is invited to contact the below-listed attorney if the Examiner believes that a telephone conference will advance the prosecution of this application.

Respectfully submitted,

By: _____
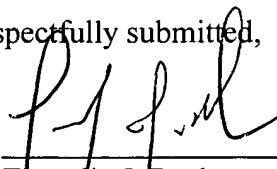
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In the claims:

Please cancel claim 55 without prejudice.

Please amend claims 24, 29-31, 33, 38-40, 42 and 46-48 and add claim 50 to read as follows:

24. (Four Times Amended) A video graphics processing circuit comprises:

a processing unit; and

memory operably coupled to the processing unit, wherein the memory stores
programming instructions that, when executed by processing unit, cause a
coupling controller of the processing unit to (a) receive display preferences
regarding at least one of a multiple displays; (b) determine whether the display
preferences can be fulfilled in observance of at least one of: configuration
properties of the at least one of the multiple displays and configuration properties
of a computing system, the coupling controller determining whether a current
configuration of the multiple displays to the computing system can be
reconfigured such that the display preferences can be fulfilled while maintaining
effective configuration of the current configuration when the display preferences
cannot be fulfilled; and (c) configure the computing system and the at least one of
the multiple displays in accordance with the display preferences when the display
preferences can be fulfilled, and reconfigure operable coupling of the multiple
displays to the computing system such that the at least one of the multiple
displays is are configured in accordance with the display preferences when the
current configuration can be reconfigured; the memory storing further
programming instructions: that cause the processing unit to (d) operably couple a
display controller of the computing system to the at least one of the multiple
displays, the display controller providing display data to the at least one of the
multiple displays; that cause the processing unit to (e) operably couple the display
controller to at least one of a plurality of screen memories, each of the plurality of

the screen memories storing separate display data and the display controller retrieving the display data ~~form~~ from the ~~at least one of the~~ plurality of screen memories; and ~~that cause the processing unit to~~ (f) operably couple the display controller to ~~at least one of~~ a plurality of display drivers, each of the plurality of display drivers writing the separate display data to the plurality of screen memories.

29. (Amended) The video graphics processing circuit of claim 24, wherein the memory further comprises programming instructions that cause the processing unit to operably couple a first display controller of the computing system to a first display of the at least one of the multiple displays and operably coupling a second display controller of the computing system to a second display of the ~~least one of the~~ multiple displays.

30. (Amended) The video graphics processing circuit of claim 29, wherein the memory further comprises programming instructions that cause the processing unit to operably couple the first display controller to a third display of the ~~at least one of the~~ multiple displays.

31. (Amended) The video graphics processing circuit of claim 24, wherein the memory further comprises programming instructions that cause the processing unit to operably couple a first display controller of the computing system to a first display of the ~~at least one of the~~ multiple displays, operably coupling a second display controller of the computing system to a second display of the ~~at least one of the~~ multiple displays, and operably coupling the first and second display controllers to <u>one of the</u> ~~a~~ screen memory.

33. (Four Times Amended) A digital storage medium for storing programming instructions that, when executed by a processing unit, cause the processing unit to configure multiple displays associated with a computing system, the digital storage medium comprises:

first means for storing programming instructions that cause a coupling controller of the processing unit to receive display preferences regarding ~~at least one of~~ the multiple displays;

second means for storing programming instructions that cause the coupling controller of the processing unit to determine whether the display preferences can be fulfilled in observance of at least one of: configuration properties of the ~~at least one of the~~ multiple displays and configuration properties of the computing system;

third means for storing programming instructions that cause the coupling controller of the processing unit to configure the computing system and the ~~at least one of the~~ multiple displays in accordance with the display preferences when the display preferences can be fulfilled;

fourth means for storing programming instructions that cause the processing unit to:

determine whether a current configuration of the multiple displays to the computing system can be reconfigured such that the display preferences can be fulfilled while maintaining effective configuration of the current configuration when the display preferences cannot be fulfilled;

reconfigure ~~operably~~ operable coupling of the multiple displays to the computing system such that the ~~at least one of the~~ multiple displays ~~is~~ are configured in accordance with the display preferences when the current configuration can be reconfigured;

operably couple a display controller of the computing system to the ~~at least one of the~~ multiple displays, the display controller providing display data to the ~~at least one of the~~ multiple displays;

operably couple the display controller to at ~~least one of~~ a plurality of screen memories, each of the plurality of the screen memories storing separate display data and the display controller retrieving the display data ~~form~~ from the at least one of the plurality of screen memories; and

operably couple the display controller to ~~at least one of~~ a plurality of display drivers, each of the plurality of display drivers writing the separate display data to the plurality of screen memories.

38. (Amended) The digital storage medium of claim 33 further comprises means for storing programming instructions that cause the processing unit to operably couple a first display controller of the computing system to a first display of the ~~at least one of the~~ multiple displays

and operably coupling a second display controller of the computing system to a second display of the ~~least one of the~~ multiple displays.

39. (Amended) The digital storage medium of claim 38 further comprises means for storing programming instructions that cause the processing unit to operably couple the first display controller to a third display of the ~~at least one of the~~ multiple displays.

40. (Amended) The digital storage medium of claim 33 further comprises means for storing programming instructions that cause the processing unit to operably couple a first display controller of the computing system to a first display of the ~~at least one of the~~ multiple displays, operably coupling a second display controller of the computing system to a second display of the ~~at least one of the~~ multiple displays, and operably coupling the first and second display controllers to a screen memory.

42. (Amended) A video graphics processing circuit for displaying at least one image on ~~at least one of~~ a plurality of displays, comprising:
   a plurality of display controllers included on a single video graphics card;
   a plurality of drivers;
   memory, wherein at least a portion of the memory is screen memory, the screen memory having a plurality of screen memory portions, each of the plurality of screen memory ~~potions~~ portions storing separate display data;
   coupling module operably coupled to a plurality of displays and the screen memory; and
   a coupling controller operably coupled to receive display preferences and to determine whether the display preferences can be fulfilled in observance of configuration properties, the display preferences including at least one of displaying an image on more than one of the displays, displaying separate images on each of the displays, displaying a portion of the image on one of the displays and displaying the image on another one of the multiple displays, providing different refresh rates for at least two of the displays, providing different resolutions for at least two of the displays, selecting one of the displays to display a predetermined type

of image, and displaying a first portion of the image on a first one of the displays and displaying a second portion of the image on a second one of the displays;

wherein, when the display preferences can be fulfilled, the coupling controller provides configuration requirements to the coupling module, wherein the coupling module, based on the configuration requirements, operably couples at least one of the plurality of display controllers with at least a portion of the screen memory and with at least one display, a respective display driver of the plurality of display drivers thereby writing respective separate display data to a respective one of the plurality of screen memory portions, and wherein the at least one of the plurality of display controllers retrieves display data from the at least a portion of the screen memory and provides the display data to the at least one display, and wherein the coupling controller provides reconfiguration requirements to the coupling module when the display preferences cannot be fulfilled but a current configuration of the plurality of display controllers to the at least one display can be reconfigured such that the display preferences can be fulfilled while maintaining effective configuration of the current configuration.

46. (Amended) The video graphics processing circuit of claim 42, wherein the configuration requirements cause the coupling module to operably couple a first display controller of the plurality of display controllers to a first display ~~of the at least one display~~ and operably couple a second display controller of the plurality of display controllers to a second display ~~of the at least one display~~.

47. (Amended) The video graphics processing circuit of claim 46, wherein the configuration requirements cause the coupling module to operably couple the first display controller to a third display ~~of the at least one display~~.

48. (Amended) The video graphics processing circuit of claim 42, wherein the configuration requirements cause the coupling module to operably couple a first display controller of the plurality of display controllers to a first display ~~of the at least one display~~, operably coupling a second display controller of the plurality of display controllers to a second

display of the at least one display, and operably coupling the first and second display controllers to the screen memory.

50. (Added 1/13/03) The apparatus of claim 49 wherein the configuration properties comprise means for causing the coupling controller to couple a first screen memory portion to more than one of the plurality of display controllers.

55. (Added 05/31/01) The apparatus of claim 49 wherein the configuration properties comprise means for causing the coupling controller to couple a first screen memory portion to more than one of the plurality of display controllers.